

connecting layer being formed with a conductive resin between the leading end portion and said electrode, and

said piezoelectric resonator element being attached to said leads at an end of the leading end portion on a portion of the substantially U-shaped edge closest to said piezoelectric resonator element, on a side of said piezoelectric resonator element which faces said supporting member, so that an edge of said piezoelectric resonator element on the side which faces said supporting member may be positioned on said portion of the substantially U-shaped edge and that the piezoelectric resonator element is supported by said leads so that a gap is formed between said supporting member and said piezoelectric resonator element.

8. (Four Times Amended) A method for manufacturing a piezoelectric resonator, comprising:

attaching a piezoelectric resonator element comprising a piezoelectric body having an electrode formed thereon, to a plurality of leads which connect said piezoelectric resonator element mechanically to a supporting member and permit electrical connection thereof;

providing a gap between said supporting member and said piezoelectric resonator element; and

forming a connecting layer of a conductive resin between said electrode and flat leading end portions of said leads, connected substantially in parallel with said electrode, having a substantially U-shaped edge which opens toward a leading end of the leads, said electrode opposing one surface of said piezoelectric resonator element,

said piezoelectric resonator element being attached to said leads at an end of the leading end portion on a portion of the substantially U-shaped edge closest to said piezoelectric resonator element, on a side of said piezoelectric resonator element which faces said supporting member, so that an edge of said piezoelectric resonator element on the side

518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

which faces said supporting member may be positioned on said portion of the substantially U-shaped edge.

14. (Four Times Amended) A piezoelectric resonator unit having a piezoelectric resonator, and a hollow protector, the piezoelectric resonator comprising:

a piezoelectric resonator element having a piezoelectric body and an electrode formed on a surface of the piezoelectric body;

a supporting member supporting said piezoelectric resonator element; and

a plurality of leads mechanically connecting said piezoelectric resonator element to said supporting member and permitting electrical connection thereof each of said leads being provided with a flat leading end portion having a substantially U-shaped edge which opens toward a leading end of the leads, connected substantially in parallel with said electrode, said electrode opposing one surface of said piezoelectric resonator element, and a connecting layer being formed with a conductive resin between the leading end portion and said electrode, and

said piezoelectric resonator element being supported by said leads so that a gap is formed between said supporting member and said piezoelectric resonator element,

said piezoelectric resonator being inserted, and sealed by said supporting member and said protector, and said piezoelectric resonator being attached to said leads at an end of the leading end portion on a portion of the substantially U-shaped edge closest to said piezoelectric resonator element, on a side of the piezoelectric resonator element which faces said supporting member, so that an edge of said piezoelectric resonator element on the side which faces said supporting member may be positioned on said portion of the substantially U-shaped edge.

21. (Three Times Amended) A method for manufacturing a piezoelectric resonator unit comprising:

attaching a piezoelectric resonator element comprising a piezoelectric body having an electrode formed thereon, to a plurality of leads which connect said piezoelectric resonator element mechanically to a supporting member and permit electrical connection thereof:

providing a gap between said supporting member and said piezoelectric resonator element;

forming a connecting layer of a conductive resin between said electrode and flat leading end portions of said leads, connected substantially in parallel with said electrode, having a substantially U-shaped edge which opens toward a leading end of the leads, said electrode opposing one surface of said piezoelectric resonator element;

inserting the piezoelectric resonator element connected to said supporting member into a hollow protector; and

sealing the piezoelectric resonator by said supporting member and said protector,

said piezoelectric resonator element being attached to said leads to an end of the leading end portion on a portion of the substantially U-shaped edge closest to said piezoelectric resonator element, on a side facing said supporting member, so that an edge of said piezoelectric resonator element on the side facing said supporting member may be positioned on said portion of the substantially U-shaped edge.

REMARKS

Claims 1, 3-14 and 16-26 are pending. By this Amendment, claims 1, 8, 14 and 21 are amended for further clarity, and to correct minor informalities pointed out by the Office Action. No new matter is added.

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. 1.121(c)(ii)).